

REMARKS

The final Office Action of April 20, 2009 and the Notice of Panel Decision of October 22, 2009, have been carefully reviewed and these remarks are responsive thereto. Claims 1, 4, 6, 7, 9, 13, 14, 22, 35 and 36 have been amended. No new matter has been added. Claims 2, 3, 5, 8, 10-12, 17, 20, 21, 25-30 and 37 have been cancelled without prejudice or disclaimer. Claims 1, 4, 6, 7, 9, 13-16, 18, 19, 22-24 and 31-36 are pending upon entry of the present amendment.

Allowable Subject Matter

Applicants note with appreciation the indication of allowable subject matter with respect to claims 3-5, 9 and 12 and the allowability of claims 15-21, 25-34 and 37.

Claim Rejections – 35 U.S.C. §112

Claims 35 and 36 stand rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement. Applicants respectfully traverse.

The Office Action asserts that the feature of "[a] computer-readable storage medium encoded with instructions configured to control a processor to perform a process" is not supported in the specification. Applicants disagree. The Federal Circuit has held, "[t]o fulfill the written description requirement, the patent specification must describe an invention in sufficient detail that one skilled in the art can clearly conclude that the inventor invented what is claimed" (see *Cordis Corp. v. Medtronic AVE, Inc.*, 339 F.3d 1352, 1364 (Fed. Cir. 2003)). However, the Federal Circuit has explained that "[t]he disclosure as originally filed does not ... have to provide *in haec verba* support for the claimed subject matter at issue" (see *Id.*). In other words, there is no requirement that the precise language used in the claims appear in the specification, in order to satisfy the written description requirement.

Here, the feature of "a computer-readable storage medium encoded with instructions configured to control a processor to perform a process" is described in the specification, for example, at paragraph 34, which discloses that the terminals of the claimed invention can be made up of a portable computer with software. One of ordinary skill in the art would recognize that the portable computer with software corresponds to "[a] computer-readable storage medium

encoded with instructions configured to control a processor to perform a process." In another example, the specification at paragraph 53 describes that a mobile terminal includes a control unit that performs the various features of the invention, and memory means that includes the control information needed for the performance of those functions. One of ordinary skill in the art would recognize that the memory means, the control information, the control unit, and the functions corresponds to a "computer-readable storage medium," "instructions," a "processor," and a "process," respectively. Therefore, the specification in the present application provides full and adequate support for the claim recitations. Accordingly, withdrawal of this rejection is respectfully requested.

Claim Rejections – 35 U.S.C. §101

Claims 35 and 36 stand rejected under 35 U.S.C. § 101 because the claimed invention is allegedly directed to non-statutory subject matter. Applicants disagree. The Office Action asserts that the terminology "[a] computer-readable storage medium encoded with instructions configured to control a processor to perform a process" is not provided antecedent basis in the specification, and the limitation "computer-readable storage medium" is not disclosed in the specification to exclude signal medium. In particular, the Office Action states that "[i]t is known in the art that the signal medium is used for containing, storing, communicating, propagating or transporting the computer software." p. 5. However, the Office offers no support for the allegation that a signal medium stores any information much less computer software. The Office even concedes that a signal medium such as a carrier wave signal has no physical structure. Accordingly, a computer readable storage medium constitutes statutory subject matter. Withdrawal of this rejection is thus respectfully requested.

Claim Rejections - 35 U.S.C. § 103

Claims 1, 2, 6, 13, 14, 22, 23 and 35 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Fischer (U.S. Patent App. Pub. No. 2004/0246932, "Fischer") in view of Ayyagari *et al.* (U.S. Patent App. Pub. No. 2002/0176366, "Ayyagari"). This rejection is respectfully traversed.

Amended independent claim 1 recites, *inter alia*,

- establishing, by a first wireless terminal, a beacon interval for an ad-hoc network; and
- broadcasting beacon frames from the first wireless terminal at the beacon intervals, wherein one or more of the beacon frames comprise an identifier list including identifiers of wireless terminals belonging to the ad-hoc network, the identifiers including an identifier of a second wireless terminal different from the first wireless terminal.

Neither Fischer nor Ayyagari, either separately or in combination, teaches or suggests such features. The Office Action concedes at p. 7 that Fischer does not particularly show introducing an identifier list into at least some of the beacon frames, where the identifier list includes identifiers of wireless terminals belonging to the ad-hoc network. Instead, the Office Action relies on Ayyagari, alleging that Ayyagari describes an identifier list including identifiers of wireless terminals belonging to an ad-hoc network. However, Ayyagari merely describes presenting a list of visible SSIDs in Ad Hoc mode to a user and allowing a user to select one or more of the SSIDs from the list. para. [0049]. Specifically, Ayyagari states that the list includes information regarding the STAs beaconing in Ad Hoc mode. *Id.* Even so, there is no teaching or suggestion in Ayyagari of *a beacon frame* including a list of identifiers for wireless terminals, the identifiers including the identifier of a wireless terminal different from the wireless terminal broadcasting the beacon frame. That is, there is no teaching or suggestion by Ayyagari of the list of visible SSIDs (i.e., the alleged list of identifiers) being broadcast in a beacon frame. The Office Action asserts that “Ayyagari also discloses that the identifier list is retrieved by the technique of beaconing in the Ad hoc mode.” However, this is a mischaracterization of the Ayyagari. Ayyagari clearly states that “[t]he retrieved list includes information regarding the STAs beaconing in the Ad Hoc mode,” not that the retrieval of the list includes or involves beaconing. Accordingly, the Office’s conclusion that “one of ordinary skill in the art could see that the identifier list must be included into the beacon frame, which are used to contain the beacon data in the Ad hoc communication system,” is clearly erroneous and unsupported by Ayyagari.

Significantly, Ayyagari describes that the alleged list of identifiers is generated by an initial scan process. para. [0049]. One of ordinary skill in the art would understand such a

description to mean that the STA generating the list listens to the beacons of other STAs in order to know which other STAs are around. Thus, the STA generates the list by collecting the individual beacons of the other STAs, each of which includes an identifier of the beaconing STA, not an identifier of a terminal other than the beaconing STA. Claim 1 is thus allowable for at least the foregoing reasons.

Amended independent claim 22 recites features similar to those discussed above with respect to claim 1 and is thus allowable for substantially the same reasons as claim 1.

Amended independent claim 35 recites, *inter alia*,

- establish, in a first wireless terminal, a beacon interval for an ad-hoc network;
- broadcast beacon frames from the first wireless terminal at the beacon intervals, wherein one or more beacon frames comprises an identifier list including identifiers of wireless terminals belonging to the ad-hoc network including an identifier of a second wireless terminal different from the first wireless terminal.

As discussed above, neither Fischer nor Ayyagari teaches or suggests broadcasting beacon frames wherein each of one or more beacon frames comprises an identifier list including an identifier of a wireless terminal different from a wireless terminal from which the beacon frames is sent. Accordingly, claim 35 is allowable for at least these reasons.

Claims 6, 13, 14, 22 and 23 are dependent claims and are thus allowable for at least the same reasons as their respective base claims and further in view of the novel and non-obvious features recited therein.

Claims 7, 8, 10, 11 and 24 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Fischer in view of Ayyagari and further in view of Runick (U.S. Patent App. Pub. No. 2002/0131371, "Runick").

Claims 7 and 24 are dependent on one of claims 1 and 22, respectively. As discussed herein, neither Fischer nor Ayyagari teach or suggest each and every feature of claims 1 and 22. Runick does not cure the aforementioned deficiencies of Fischer and Ayyagari. Accordingly, claims 7 and 24 are allowable over the asserted combination of Fischer, Ayyagari and Runick.

CONCLUSION

All rejections having been addressed, Applicants respectfully submit that the instant application is in condition for allowance, and respectfully solicit prompt notification of the same. Should the Examiner find that a telephonic or personal interview would expedite passage to issue of the present application, the Examiner is encouraged to contact the undersigned attorney at the telephone number indicated below. If any additional required fees are or if an overpayment has been made the Commissioner is authorized to charge or credit Deposit Account No. 19-0733. Applicants look forward to passage to issue of the present application at the earliest convenience of the Office.

Respectfully submitted,
BANNER & WITCOFF, LTD.

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By: /Chunhsi Andy Mu/
Chunhsi Andy Mu
Reg. No. 58,216

1100 13th Street, N.W.
Suite 1200
Washington, D.C. 20005-4051
(202) 824-3000